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10/714,798	11/17/2003	Victor Shih	250124-1010	2940

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EXAMINER

MANNING, JOHN

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/714,798

Applicant(s)

SHIH ET AL.

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/23/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Miyazaki (US Pat App Pub No 2003/0007090).

In regard to claim 1, Miyazaki discloses a digital tuner (illustrated as Figures 2 and 5-6) configured as a set top box. The claimed limitation of “a tuner for receiving a digital broadcasting signal and generating a digital data stream” is met by the front end section 4 of Figure 2. “First, explained is the digital tuner 2 configured, for example, as a set top box (STB) or set back box (SBB). An F/E (Front End) section 4 channel-selects and demodulates a broadcast signal received through a not-shown antenna, and outputs it as a transport stream (hereinafter, referred to as TS) to a demultiplexer 5” (Paragraph 0028). The claimed limitation of “a demultiplexer for receiving said digital data stream and generating a digital video signal” is met by demultiplexer 5 of Figure 2. “The demultiplexer 5 separates the supplied TS into PES (Packetized Elementary Stream)-based video of a specified channel, audio, data signals and the information signals of these signals. Among these, the video signal is outputted to an MPEG

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(Moving Picture Experts Group) decoder section 6. The information signal is outputted to a CPU (Central Processing Unit) 7 and the data signal is to a data processing section 11. Incidentally, the audio signal is outputted to and processed in a not-shown audio decoder section" (Paragraph 0029). The claimed limitation of "a MPEG-2 decoder for receiving said digital video signal and generating an interlaced digital video signal" is met by MPEG decoder section 6 of Figure 2. "The MPEG decoder section 6 decodes the video signal into a base band according to a signal format thereof and outputs it to a converter section 8. Note that, concerning the signal format, there are roughly four format definitions of 1080I, 720p, 480p and 480I in the BS digital broadcast. Herein, the numeral represents the number of scanning lines while I denotes an interlace scheme and p a progressive scheme, respectively. Meanwhile, the MPEG decoder section 6 outputs an information signal on a signal format concerning the video signal to the CPU 7" (Paragraph 0030). The claimed limitation of "a deinterlace video processor for receiving said interlaced digital video signal and generating a digital RGB signal, wherein said digital video signal can be transmitted to a display via a DVI interface for a user to be watched on said display" is met by converter section 8 of Figures 2 and 5. "The converter section 8 size-reduces a video signal inputted by the MPEG decoder section 6 according to a control signal from the CPU 7, and converts a 480I signal into a signal format of 480p and outputs it to a synthesizer section 10. When there is no conversion instruction from the CPU 7, the converter section 8 outputs the input video signal, as it is, to the synthesizer section 10" (Paragraph 0033). "The digital tuner 32 is similar in configuration to the digital tuner 2 of FIG. 2 excepting in that a DVI transmitter

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section 34 is added and the D/A converter section 12 is omitted. The display unit 33 is similar in configuration to the display unit 3 of FIG. 2 excepting in that a DVI receiver section 35 is added and the A/D converter section 13 is omitted. Note that, in FIG. 6, the parts corresponding to those of FIG. 2 are attached with the corresponding numerals whose explanations will be omitted because of duplication" (Paragraph 0074). Where it is inherent to the Digital Video Interface that the generated digital signal is RGB. The claimed limitation of "a microprocessor connected to said tuner, said demultiplexer, said MPEG-2 decoder and said deinterlace video processor, for transmitting related data signal to each unit and controlling an operation of each unit" is met by CPU 7 of Figure 2. "The CPU 7 controls the various sections correspondingly to an input from an input section 9 for outputting a corresponding signal to a user operation. Meanwhile, the CPU 7 determines whether or nor the video signal is a data-broadcast video signal, depending on an information signal of the video signal inputted from the demultiplexer 5 or a user instruction signal inputted through the input section 9. Furthermore, the CPU 7 determines whether or not the video signal has a signal format of 480I, depending on a signal-formatted information signal on the video signal inputted by the MPEG decoder section 6" (Paragraph 0031).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki in view of Schindler et al. (US Pat No 6,496,983).

In regard to claim 2, Miyazaki discloses a digital to analog converter as illustrated in Figure 2. The reference fails to explicitly disclose transmitting the signal to the display via a VGA interface. Schindler teaches the utilization of the VGA interface format so as to provide a signal of higher quality than that of NTSC. "The circuitry provides audio and video tuning capability for display of received high quality video signals on the monitor without an intermediate conversion to a lower quality NTSC format. The circuitry decodes the received video signals and converts them to VGA format which provides images of higher quality than NTSC. The monitor is capable of directly displaying VGA signals, and is not required to have a television tuner circuit, remote control, or audio circuitry. This significantly reduces the cost of the monitor and improves the quality of display as opposed to typical large screen televisions which contain complex tuning circuitry" (Col 4, Lines 17-24). Consequently, it would have been obvious to one of ordinary skill in the art to implement Miyazaki with transmitting the signal to the display via a VGA interface for the stated advantage.

In regard to claims 4 and 7, Miyazaki discloses receiving a digital signal. The reference fails to explicitly disclose that the received signal is a digital wireless satellite signal. Schindler teaches the utilization of a digital wireless satellite signal so as to obtain a signal of higher quality than that of NTSC broadcast. Consequently, it would

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have been obvious to one of ordinary skill in the art to implement Miyazaki with transmitting the utilization of a digital wireless satellite signal for the stated advantage.

In regard to claims 5 and 6, the combined teaching fails to explicitly disclose that the digital wireless is a DVB-T terrestrial signal. Official notice is taken that it is notoriously well known in the art to use a DVB-T terrestrial signal so as to allow for a relatively simple antenna where the received signal adheres to the DVB standard for interoperability. Consequently, it would have been obvious to one of ordinary skill in the art to implement Miyazaki with transmitting the utilization of a DVB-T terrestrial signal for the stated advantage.

In regard to claim 8, the combined teaching discloses the use of a digital wireless satellite-broadcasting signal. The teaching fails to explicitly disclose that the signal is DVB-S. Official notice is taken that it is notoriously well known in the art to implement a digital wireless satellite-broadcasting signal as a DVB-S signal so as to adhere to that standard for interoperability. Consequently, it would have been obvious to one of ordinary skill in the art to implement Miyazaki with a digital wireless satellite-broadcasting signal as a DVB-S signal for the stated advantage.

In regard to claim 9, the combined teaching discloses the use of a digital wireless broadcasting signal. The teaching fails to explicitly disclose that the signal is ATSC. Official notice is taken that it is notoriously well known in the art to implement a digital wireless broadcasting signal as an ATSC signal so as to adhere to that standard for interoperability. Consequently, it would have been obvious to one of ordinary skill in the

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art to implement Miyazaki with a digital wireless satellite-broadcasting signal as an ATSC signal for the stated advantage.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows:

- The Choi reference (US Pat App Pub No 2005/0024532) discloses an apparatus for converting digital video signal formats.
- The Dai et al. (US Pat App Pub No 2005/0046745) discloses a video signal processor.
- The Digital Visual Interface (April 02, 1999, Digital Display Working Group, Revision 1.0).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM  
August 1, 2005



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